SECTION 09510

SUSPENDED ACOUSTIC CEILINGS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Suspended metal grid ceiling suspension system

B. Acoustical panels

C. [Non-fire rated assembly]

D. Perimeter trim

1.2 QUALITY ASSURANCE

A. Use products of companies specializing in the manufacture of ceiling suspension systems and ceiling panels having satisfactorily performed in at least fifty projects of equivalent nature and scope.

B. Use an installer having satisfactorily performed in at least 50 projects of equivalent nature and scope, and who is approved by the materials manufacturers.

1.3 SUBMITTALS

A. Submit the following in accordance with the requirements of Section 01300.

1. Catalog data on metal grid ceiling suspension system components and ceiling panels.

2. Manufacturer's installation instructions.

[3. Twelve inch square sample of ceiling panel.]

1.4 PROJECT CONDITIONS

A. Install ceiling panels only after building is enclosed, sufficient heat is provided, dust generating activities have been finished, overhead work is completed, tested and approved, and interior wet work is dry.

B. Maintain uniform temperature of minimum 60 degrees F, and a maximum humidity of 40 percent prior to, during, and after ceiling panel installation.

1.5 EXTRA MATERIALS

A. Provide [?] cartons of each type of ceiling panel used to the University.

PART 2 PRODUCTS

2.1. MANUFACTURERS - SUSPENSION SYSTEM

A. Armstrong World Industries Inc., Prelude 7300 Series exposed system

B. Chicago Metallic Corporation, 500 Snap-Grid exposed system

C. USG Interiors, DX exposed system

2.2. SUSPENSION SYSTEM MATERIALS

A. Provide ceiling suspension system materials conforming to the following standards:

1. Grid: ASTM C635, heavy duty, non-fire rated, exposed T components, die cut and interlocking.

2. Accessories: Stabilizer bars, clips, splices, edge moldings, and as required for suspension system by the manufacture.

3. Grid materials: Commercial quality cold rolled steel with galvanized coating and white painted finish.

2.3 MANUFACTURERS - CEILING PANELS

A. Armstrong World Industries Inc., Minatone Cortega

B. Celotex Corporation, Natural Fissured

C. USG Interiors, Inc., Acoustone F Fissured

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In labs where no airborne panel particles are acceptable, and in areas requiring frequent cleaning, specify plastic faced panels as below.
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2.4 MANUFACTURERS - PLASTIC FACED CEILING PANELS

A. Armstrong World Industries Inc. - Mylar “RH90 Fire Guard”

B. Celotex Corporation - “Vinyltone”

C. USG Interiors, Inc. - “Clean Room Vinyl”

2.5 CEILING PANEL MATERIALS

A. Provide ceiling panel materials conforming to the following:

1. Size: 24 by 48 inches

2. Thickness: 5/8 inch

3. Composition: Mineral fiber

4. Light reflectance: LR-1

5. NRC range: 0.65-0.75

6. Edge: Square

7. Surface color: White

8. Surface finish: Fissured

9. Flame spread/smoke developed: 25/50 or less per ASTM E84.

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Insert this section if plastic faced panels are specified above
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2.6 PLASTIC FACED CEILING PANEL MATERIALS

A. Provide ceiling panel materials conforming to the following:

1. Size: 24 by 48 inches

2. Thickness: 5/8 inch

3. Composition: Mineral fiber

4. Light reflectance: LR-0.75

5. NRC range: 0.55-0.65

6. Edge: Square

7. Surface color: White

8. Surface finish: Plastic film

9. Flame spread/smoke developed: 25/50 or less per ASTM E84.

PART 3 EXECUTION

3.1 INSPECTION

A. Verify existing conditions as specified above before beginning work.

B. Verify that layout of hangers will not interfere with other work.

C. Beginning of installation indicates acceptance of existing conditions. Do not begin work, and notify Contract Administrator if existing conditions will adversely affect acceptable results.

3.2 INSTALLATION

A. Install system in accordance with ASTM C636.

B. Install system in accordance with ASTM E580 to meet seismic restraint requirements.

C. Install system capable of supporting imposed loads to a deflection of 1/360 maximum.

D. Locate systems on room axes according to reflected ceiling plans on the Drawings.

E. Supply hangers or inserts, if required by structural materials above, with instructions for their correct placement. Provide additional hangers and inserts as required.

F. With the exception of wall molding, hang suspension system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.

G. Where ductwork or other work prevents the regular spacing of hangers, reinforce the nearest affected hangers to span the extra distance.

H. Do not support other building components on main runners or cross runners if weight causes total dead load to exceed deflection capability. Support component loads with supplementary hangers located within 6 inches of each corner, or support components separately.

I. Do not load system eccentrically, or produce rotation of members.

J. Install wall molding at intersection of ceiling and vertical surfaces, using longest practical lengths. Miter corners. Provide edge moldings at junctions with other interruptions.

K. Fit ceiling panels in place free from damaged edges or other defects detrimental to appearance or function.

L. Install ceiling panels level in uniform plane, and free from twist , warp and dents.

3.3 TOLERANCES

A. Maintain tolerances within the following limits:

1. Variation from flat and level surface: 1/8 inch in 10 feet.

2. Variation from plumb of grid members caused by eccentric loads: 2 degrees maximum.

END OF SECTION